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| 09/805,268      | 03/13/2001  | James T. Whitehead   | C4-702              | 3197             |

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IP LEGAL DEPARTMENT  
TYCO FIRE & SECURITY SERVICES  
ONE TOWN CENTER ROAD  
BOCA RATON, FL 33486

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| EXAMINER |
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PREVIL, DANIEL

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| ART UNIT | PAPER NUMBER |
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2636

DATE MAILED: 07/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/805,268

Applicant(s)

WHITEHEAD, JAMES T.

Examiner

Daniel Previl

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 May 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

This action is responsive to communication filed on May 14, 2003.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plonsky (US 5,049,857) in view of Chieu et al. (US 5,777,561).

Regarding claims 1, 17, Plonsky discloses first and second field generators (power amplifier 21c, pedestal 6 and power amplifier 22c, pedestal 7), each having a respective antenna for generating an electromagnetic field in a detection zone defined between antennas (coils) (fig. 1; fig. 2; col. 6, lines 20-48); at least one of field generator (a control system and detection assembly 8 connected to the power amplifiers 21, 22c provides overall control of the operation) being responsible to a presence of at least two electronically detectable tags in detection zone (makes a determination as to the presence in the zone 3 of articles 2 bearing tags 4 having a valid markers 5) (col. 5, lines 42-49).

Plonsky discloses every feature of the claimed invention but fails to explicitly disclose varying an intensity of at least one electromagnetic fields so that only one electronically detectable tags is detected in electromagnetic field.

However, Chieu discloses the step for varying an intensity of at least one of electromagnetic fields so that only one of electronically detectable tags is detected in electromagnetic field (by varying the modulation strength of the weak, modulated signal, the returned signal strength of signals from the tags required to overcome the coupled modulator signal is increased or decreased thereby allowing the base station to select a group of tags based on the returned signal strength) (col. 7, lines 5-10; col. 8, lines 53-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Chieu in Plonsky. Doing so would detect accurately the presence of a plurality of tags without interfering with each other within a surveillance zone.

Regarding claim 2, the above combination discloses all the limitations in claim 1 and Chieu further discloses the step of adjusting amplitude of electric power delivered to the antenna of the field generator producing electromagnetic field (varying the modulating strength, amplitude modulation) (col. 7, lines 5-55).

Regarding claim 3, Plonsky discloses electromagnetic fields in response to a receipt of corrupted data from at least one of two electronically detectable tags in

detection zone (magnetic energy including the perturbation energy created by the presence of any markers 5 in the zone 3) (col. 5, lines 33-41).

Regarding claims 4-5, 10, Plonsky discloses a controlling means for detecting the presence of at least two electronically detectable tags in detection zone and for varying the intensities of electromagnetic fields in response to detection (control system 8 provides control in response to the transmitted and received magnetic energy to the presence in the zone 3 of articles 2 bearing tags 4 having a valid makers, adjustment the signal levels) (col. 5, lines 42-49; col. 6, lines 36-48).

Regarding claim 6, the above combination discloses all the limitations in claim 1 and Chieu further discloses one of field generators varies an intensity of a second one of electromagnetic fields in response to the presence of at least two electronically detectable tags in detection zone (col. 7, lines 5-10). Same motivation as claim 1.

Regarding claim 7, the above combination discloses all the limitations in claim 1 and Chieu further discloses electromagnetic fields is varied in inverse proportion to each other (increase, decrease) (col. 7, lines 5-10).

Regarding claim 8, Plonsky discloses an outer perimeter of each of electromagnetic fields is defined by a minimum field intensity necessary to detect one of electronically detectable tags (decreasing current to the transmitter coil) (col. 2, lines 51-64).

Regarding claim 9, the examiner takes the official notice that " a portion of perimeters of each of electromagnetic fields substantially abut each another" is well known in the art.

Regarding claims 11, 12, the above combination discloses all the limitations in claim 1 and Chieu further discloses the step of varying the intensity one of electromagnetic fields until there is no more than one electronically detectable tag within the perimeter of the associated electromagnetic field (no tag in the field in a position to be read by antenna 185) (col. 8, lines 50-55).

Regarding claims 13, 14, the above combination discloses all the limitations in claim 1 and Chieu further discloses one of electromagnetic field is varied in both small and large step (increase, decrease) (col. 7, lines 5-10).

Regarding claim 15, although, the above combination discloses all the limitations set forth in claims but fails to specify third and fourth field generators wherein third antenna is located vertically above first and second; and fourth and fourth antenna is located vertically below first, second and third antenna; electromagnetic field by third and fourth antenna are perpendicular to the fields of first and second antennas. Since, Plonsky discloses a plurality of generators associated with coils (fig. 1-fig. 2). It would have been obvious to any skill artisan at the time the invention was made to add more field generators as desired and place antennas in any position as desired to detect accurately the presence of a plurality of tags without interfering with each other within a surveillance zone.

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Regarding claim 16, Plonsky discloses no wires connect each of field generators to one another and no wires connect each of antennas to one another (fig. 1).

Regarding claim 18, Plonsky discloses electromagnetic fields in response to a receipt of corrupted data from at least one of two electronically detectable tags in detection zone (magnetic energy including the perturbation energy created by the presence of any markers 5 in the zone 3) (col. 5, lines 33-41).

Regarding claim 19, the above combination discloses all the limitations in claim 1 and Chieu further discloses varying an intensity of a second one of electromagnetic fields in response to the presence of at least two electronically detectable tags in detection zone (col. 7, lines 5-10). Same motivation as claim 1.

Regarding claim 20, the above combination discloses all the limitations in claim 1 and Chieu further discloses electromagnetic fields is varied in inverse proportion to each other (col. 7, lines 5-10)

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Crossfield (US 6,486,655) discloses a magnetic position sensing techniques.

McGinn (US 5,130,697) discloses a method and apparatus for shaping a magnetic field.

Bettine (US 6,400,273) discloses an EAS system with wide exit coverage and reduced over-range.

Issacman et al. (US 6,127,928) discloses a method and apparatus for locating and tracking documents and other objects.

Tyren (US 5,760,580) discloses a method for excitation and detection of magnetic elements by a mechanical resonance.

Tyren (US 6,417,771) discloses a sensor, a method and system for remote detection of objects.

Granovsky (US 5,276,430) discloses a method and electromagnetic security system for detection of protected objects in a surveillance zone.

Weaver (US 5,703,566) discloses an anti-shoplifting security system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is 703 305-1028. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.




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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on 703 305 4717. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9314 for regular communications and 703 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

Daniel Previl  
Examiner  
Art Unit 2632

DP  
July 19, 2003



JEFFERY HOFSSASS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600